UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/504,876	02/16/2000	Paul Hinker	06502-0210-00000	5556

			EXAMINER
22852	7590	08/11/2005	TRAN, DENISE

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ART UNIT	PAPER NUMBER
2189	

DATE MAILED: 08/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 March 2005*.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,6-12,14-19,21 and 24-32* is/are pending in the application.

    4a) Of the above claim(s) *6* is/are withdrawn from consideration.

5)☒ Claim(s) *1-4,7-12,14-19,21 and 24* is/are allowed.

6)☒ Claim(s) *25-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 February 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date *8/8/03;5/6/04*.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☒ Other: *See Continuation Sheet*.

Continuation of Attachment(s) 6). Other: IDS 6/21/04;6/28/04;2/18/05;11/2/04;3/24/05.

DETAILED ACTION

1.   The applicant's amendment filed 3/24/05 has been received. Claims 1-4, 7-12,

14-19, 21, 24 -32 are presented for examination. Claims 5, 13, 20, and 22-23 have

been canceled. Claim 6 is withdrawn from further consideration pursuant to 37 CFR

1.142(b) as being drawn to a nonelected invention, there being no allowable generic or

linking claim. Election was made **without** traverse in Paper No. 11.

2.   Claims 1-4, 7-12, 14-19, 21 and 24 are allowable over the prior art of record.

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by
> another filed in the United States before the invention by the applicant for patent or (2) a patent
> granted on an application for patent by another filed in the United States before the invention by the
> applicant for patent, except that an international application filed under the treaty defined in section
> 351(a) shall have the effects for purposes of this subsection of an application filed in the United States
> only if the international application designated the United States and was published under Article 21(2)
> of such treaty in the English language.

4.   Claims 25-32 are rejected under 35 U.S.C. 102(e) as being anticipated by

Sturges, U.S. Patent No. 5,930,827. The rejection is maintained.

As per claim 29, Sturges teaches a method in a data processing system for

allocating memory, the method comprising:

receiving a memory request for a reference to a memory block (e.g., col. 6, lines

60-65); returning the reference to the memory block to satisfy the memory request (e.g.,

col. 6, line 60-col. 7, line 20); and adjusting an access tree structure based on the

memory request (e.g., col. 7, lines 1-45); wherein the memory block that satisfied the

request is determined based on size with reference to a plurality of linked-lists with

associated references to memory blocks of a plurality of sizes (e.g., figs 4-7C, linked

lists between 52a to 52c; 52a-52b, and 52b-52e); wherein any references associated

with a first linked-list refer memory blocks larger than any memory blocks referred to by

any references associated with the second link-list and smaller in size than any memory

blocks referred to by any references associated with the third link-list (e.g., fig. 7A, size

of 52c is larger than size of 52d or 52e and smaller than size of 52h), and wherein the

adjustment to the access tree structure reflects a result of the determination of the

memory block that satisfied the memory request (e.g., figs. 4, 7A-C; col. 7, lines 1-45).

As per claims 25, Sturges teaches a method in a data processing system for

allocating memory, the method comprising:

Forming a plurality of linked-lists with associated references to memory blocks

(e.g., figs 4-7C, linked lists between 52a to 52c; 52a-52b, and 52b-52e); setting a fast

access tree to refer to a first one of the linked –lists (i.e., 52c located on a first level tree,

e.g., page 5, lines 25-65; fig. 7A, linked list between 52a to 52c); setting a general

access tree to refer to a second one and third one of the linked lists (i.e., 52h, 52d or

52e located on the second level or third level tree; e.g., page 5, lines 25-65; fig. 7A,

linked lists between 52b-52d or 52h-52e and 52b-52h); wherein any memory blocks

referred to by any references associated with the first linked-list are larger in size than

any memory blocks referred to by any references associated with the second link-list

and smaller in size than any memory blocks referred to by any references associated

with the third link-list (e.g., fig. 7A, size of 52c is larger than size of 52d or 52e and

smaller than size of 52h); receiving a memory request for a reference to a memory

block (e.g., col. 6, lines 60-65); and accessing at least one of the fast access tree and

the general access tree to return the reference to the memory block in response to the

memory request (e.g., col. 6, line 60-col. 7, line 20).

As per claims 26 and 30, Sturges shows comprising adjusting a structure of the

fast access tree and the general access tree based on the memory request (e.g., figs. 4,

7A-C; col. 7, lines 1-45).

As per claims 27 and 31, Sturges shows searching the fast access tree to satisfy

the memory request and, if the memory request is not satisfied, searching the general

access tree to satisfied the memory request (i.e., first level access tree before second

or third level access tree; e.g., figs. 4 and 7A-C; col. 7, lines 5-20).

As per claims 28 and 32, Sturges show ensuring that fast access tree refers to

one of the plurality of linked-lists that is most frequently requested (i.e., searching the

first level access tree is most frequently requested; e.g., figs. 4 and 7A-C; col. 7, lines 5-

20).

5.   Applicant's arguments filed 3/24/05 have been fully considered but they are not

persuasive.

6.   In the remarks, the applicant's argued that nothing in Sturges discloses a "linked-list."

The examiner disagreed with the applicant's argument because Sturges teaches a list of nodes of a data structure connected by pointers, for example, node 52a has an address pointer pointing to node 52b to node 52h in the list; col. 5, lines 25-30 and col. 6, lines 7-15.

7.   In the remarks, the applicant's argued that claim 25 claims a plurality of linked-list and a general access tree and a general access tree as separate and distinct elements.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a plurality of linked-list and a general access tree and a general access tree as separate and distinct elements) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Sturges teaches what in the claim 25 is "setting a general access tree to **refer** to a second one and a third one of the linked-list." (i.e., 52h, 52d or 52e located on the second level or third level tree; e.g., page 5, lines 25-65; fig. 7A, linked lists between 52b-52d or 52h-52e and 52b-52h).

8.   In the remarks, the applicant's argued that the examiner did not show where Sturges disclosed linked-lists with associated reference to memory blocks of a plurality of sizes.

The examiner disagreed with the applicant's argument because as stated in the last office action, pages 3-4, Sturges teaches forming a plurality of linked-lists with associated references to memory blocks (e.g., figs 4-7C, linked lists between 52a to 52c; 52a-52b, and 52b-52e) or a plurality of linked-lists with associated references to memory blocks of a plurality of sizes (e.g., figs 4-7C, linked lists between 52a to 52c; 52a-52b, and 52b-52e); wherein any references associated with a first linked-list refer memory blocks larger than any memory blocks referred to by any references associated with the second link-list and smaller in size than any memory blocks referred to by any references associated with the third link-list (e.g., fig. 7A, size of 52c is larger than size of 52d or 52e and smaller than size of 52h).

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10.   The information disclosure statement filed 2/18/05 fails to comply with 37 CFR

1.98(a)(2), which requires a legible copy of each cited foreign patent document; each

non-patent literature publication or that portion which caused it to be listed; and all other

information or that portion which caused it to be listed. It has been placed in the

application file, but the information referred to therein has not been considered.

11.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Denise Tran whose telephone number is (571) 272-

4189. The examiner can normally be reached on Monday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Matt Kim can be reached on (571) 272-4182. The fax phone numbers for

the organization where this application or proceeding is assigned are (703) 872-9306 for

central Official communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is (703) 305-

9600.

Denise Tran

8/5/05